

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of

Elisabeth LAKSO et al.

Application No.: 09/720,908

Filed: March 9, 2001

For: USE OF A POLYETHENE  
MATERIAL PRODUCED FROM  
RENEWABLE RAW MATERIAL  
AS COMPONENT OF AN  
ABSORBENT ARTICLE, AND  
THE ABSORBENT ARTICLE



) **Mail Stop APPEAL BRIEF - PATENTS**

) Group Art Unit: 3761

) Examiner: Karin M. Reichle

) Appeal No.: 1

**Mail Stop APPEAL BRIEF - PATENTS**

Commissioner for Patents

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**REPLY BRIEF**

This Reply Brief is in response to the Examiner's Answer, mailed on June 3, 2005, that was filed in response to the Appeal Brief that was filed on April 1, 2005 in connection with the above-identified application.

Reply to Examiner's Answer at Page 6, lines 7-10

In the Examiner's Answer, a point is raised regarding Barrocas et al. Specifically, the Examiner asserts that the Examiner never stated that from the Barrocas et al. patent alone it is known to produce polyethene from ethane produced from ethanol which ethanol is produced from a renewable source. *Examiner's Answer, Page 6*. Appellants, simply state, whether Barrocas et al. was asserted alone or not, Barrocas et al. does not discuss or mention the production of polyethene. Barrocas et al. is directed only to a process for preparing ethene and mentions that it may be foreseen that methods which employ a renewable supply shall become more important. There is no connection between the Barrocas et al. publication and absorbent articles, much less making environmentally friendly versions of a major landfill constituent.

Reply to Examiner's Answer at Page 6, line 11 to Page 7, line 17

In the Examiner's Answer, the Examiner continues to assert that two sections of the specification constitute an admission that it is known to produce ethane [ethene] from ethanol, a renewable material and to produce polyethene from such ethane [ethene]. Appellants respectfully disagree, there is no such admission.

Specifically, the Examiner asserts that the crux of the admission is in the sentences that state:

Polyethene which can be produced from the renewable ethene in the aforescribed manner, is already known in the art. It is also known to produce ethene from ethanol in the manner described above. The novelty in the present context resides in the use of renewable raw materials in the manufacture of polyethene for use in absorbent articles, which according to the invention results in environmentally friendly absorbent articles.

*Specification, page 9, lines 15-19*. However, this is not an admission that it was known in the art to produce polyethene from ethene made from renewable material. The "aforescribed manner" is producing polyethene from ethene that was produced from non-renewable sources. See *Specification, page 6, line 13- page 8, line 18*. Thus, the alleged admission is simply stating that the "aforescribed manner" is an already known process.

Then, that this known process can also be used to produce polyethene from ethene produced from renewable sources.

Further, the Examiner highlighted "the novelty in the present context" language. Appellants point out that this statement does not declare the novelty of "the invention" but of the present context, which is focused, but not limited to by the specification, on absorbent articles. Thus, the present context involves the new use of renewable raw materials in the manufacture of polyethene for use in absorbent articles. Reciting the novelty of a focused aspect of the specification should not be perceived as an absolute limitation of the abstract novelty of the entire invention.

Moreover, the Examiner relies on three new references to suggest that the Appellants were making the asserted admission. Specifically, the Examiner relies on Muller et al. (U.S. Patent No. 4,242,455) at column 1, lines 21-25 and 38-58 and column 3, lines 22-30, Owen et al. (U.S. Patent No. 4,471,147) at column 1, lines 56-58 and 63-67 and column 11, lines 34-41, and Hsai et al. (U.S. Patent No. 4,479,812) at column 1, lines 17-25.

Essentially, Muller et al. discloses producing ethanol from renewable sources, and that such renewable ethanol may be processed into ethylene (ethene), which is disclosed as an important chemical raw material. However, Muller et al. does not disclose or suggest polyethylene (polyethene) or the production of polyethylene from renewable sources.

Owen et al. and Hsai et al. disclose methods for processing fossil fuels into ethylene, which is disclosed as a basic material for the manufacture of polyethylene. However, Owen et al. and Hsai et al. do not teach or suggest renewable sources. Instead, both patents are related to the processing of fossil fuels into ethylene.

Appellants are unclear as to how these three patents suggest that the Appellants were making the asserted admission, as asserted by the Examiner. The asserted admission is that it was known to produce ethane [ethene] from ethanol, a renewable material and to produce polyethene from such ethane [ethene]. Muller et al. does not disclose or suggest polyethene

or the production of polyethene from renewable sources. Owen et al. and Hsai et al. do not remedy this deficiency.

There is no admission that it was known to produce polyethene from ethene produced from renewable sources. In fact, the cited art does not teach or suggest using renewable ethene when producing polyethene. Thus, the cited art does not teach using renewable ethene when producing polyethene. There is no admission to the contrary.

Reply to Examiner's Answer at Page 7, lines 13-17

In the Examiner's Answer, a point is raised regarding Appellants' arguments that there is no admission that polyethene produced from renewable ethene is known. Appellants recognize that the presently claimed invention recites polyethene from renewable raw materials, which comprise, but are not limited to, renewable ethene. Appellants have directed comments to renewable ethene, as an alleged admission specifically regarding renewable ethene has been asserted. However, Appellants respectfully assert that the cited art, in addition to not teaching or suggesting polyethene from renewable ethene, also does not teach or suggest polyethene from any renewable material.

Reply to Examiner's Answer at Page 7, lines 18-20

In the Examiner's Answer, the Examiner asserts that Appellants' arguments on page 12, line 10 – page 14, line 5 have been considered but are deemed not persuasive for the same reasons as put forth with respect to "allegation" 3. Appellants note that this appears to ignore additional arguments put forth in page 12, line 10 – page 14, line 5. It was not known to use renewable polyethene in the application field of absorbent articles and packages instead of the previously used polyethene made from non-renewable materials.

In the cited art the manner of making environmentally friendly products disclosed in the cited art is to make the products biodegradable. See *Cargill, Toms et al*, or *Klemp*. Renewable raw materials are not taught or suggested. Polyethene has been used in absorbent articles and as packaging materials for more than 20 years without any teaching or suggestion to use renewable raw materials. The cited

art is directed towards a different solution to make environmentally friendly products, biodegradable materials. Thus, those skilled in the art focused on an environmentally friendly solution for absorbent articles and packaging materials made from polyethene for a substantial period of time and yet were unable to arrive at the presently claimed invention.

It was not known to use renewable raw materials when producing polyethene, especially for polyethene for use in absorbent articles and packaging materials.

Therefore, Appellants assert that the arguments on page 12, line 10 – page 14, line 5, independently demonstrate the patentability of the present claims. Specifically, that all the claim limitations have not been taught or suggested. Appellants respectfully request that the rejection of claims 1-7, 16-22, 29, 30, and 34-38 under 35 U.S.C § 103, as being unpatentable over Appellants' disclosure, Barrocas et al. (US Pat. No. 4,232,179), Toms et al. (US Pat. No. 5,417,679), Cargill (WO 94/07941), Klemp (US Pat. No. 5,176,699), Widlund (US Pat. No. 5,024,672), Sigl (US Pat. No. 4,582,550), and the definition of "polyethylenes," first paragraph, in the Materials Handbook be withdrawn.

Reply to Examiner's Answer at Page 8, line 21 to Page 9, line 2

In the Examiner's Answer, the Examiner asserts that Appellants' arguments on page 14, line 6 – page 16, line 5 have been considered but are deemed not persuasive because such arguments are narrower than the claim language of claim 1 which does not require the component be formed solely of polyethene and thereby such component could include other additions. Appellants respectfully traverse this assertion. Specifically, Appellants' arguments on page 14, line 6 – page 16, line 5 should be reviewed more carefully, as the arguments are not narrower than the claim language of claim 1.

Claim 1 recites a method of making an absorbent article, the method comprising: producing polyethene from renewable raw material, and using the polyethene in a component of the absorbent article, wherein the polyethene consists of 100% polyethene. Thus, according to the method of claim 1, 100% polyethene is formed. This 100% polyethene is then used in a component of an absorbent article. 100% polyethene is substantially non-biodegradable. While other elements of the

component are not limited to 100% polyethene, once the 100% polyethene is formed any additional elements will not change the nature of the formed 100% polyethene from being substantially non-biodegradable. Thus, the absorbent article contains substantially non-biodegradable polyethene.

The Appellants' arguments on page 14, line 6 – page 16, line 5 address the use of substantially non-biodegradable polyethene. Specifically, the cited art teaches away from using non-biodegradable polyethene in the application field of absorbent articles and packages.

That is, the references teach that only polyethene that is biodegradable should be used for environmentally-friendly purposes. Cargill states that:

In light of depleting landfill space and adequate disposable sites, there is a need for biodegradable films. Currently, films comprising polymers such as polyethylene, polypropylene, polyethylene terephthalate, nylon, polystyrene, polyvinyl chloride and polyvinylidene chloride are popular for their superior extrusion and film-making properties. However, these films are not biodegradable. Furthermore, these films are generally noncompostable, which is undesirable from an environmental point of view.

*Page 1, line 35 – page 2, line 5.*

A person skilled in the art, reviewing Cargill, would not choose 100% polyethene at all, even from renewable sources, because 100% polyethene, regardless of whether it is made from renewable resources or not, is substantially non-biodegradable.

Toms et al. is cited for column 1, lines 23-27 and column 11, lines 54-57, which state:

Heretofore, such absorbent structures have been prepared using, for example, topsheet materials prepared from woven, nonwoven, or porous formed-film polyethylene or polypropylene material. Backsheet materials typically comprise flexible polyethylene sheets.

*Column 1, lines 23-27; and*

Importantly, the absorbent articles according to the present invention are compostable to a greater extent than conventional absorbent articles which employ a polyolefin, typically a polyethylene backsheet.

*Column 11, lines 54-57.*

These cited passages are directed to polyethylene backsheets. However, Tom et al., considered as a whole, directed to disposable absorbent articles with biodegradable backsheets comprising blends of an interpenetrated network of destructurest starch with ethylene/acrylic acid copolymers or ethylene/vinyl alcohol copolymers and an aliphatic polyester. *Column 3, lines 40-49.* Toms et al. specifically states that it was discovered that the addition of conventional non-biodegradable polymers (e.g., 100% polyethylene) invariably slows down the rate of biodegradation, and hence the compostability of films containing the nonbiodegradable polymers. *Column 2, lines 62-66.* In view thereof, a person skilled in the art, reviewing Toms et al., would not choose 100% polyethene at all, even from renewable sources, because 100% polyethene, regardless of whether it is made from renewable resources or not, is substantially non-biodegradable.

Also disclosed by the Examiner, Klemp is directed to a tapeless super-absorbent disposable diaper which may have a liquid impermeable barrier which is made from a biodegradable material. Widlund was further cited in support of the above allegation. Widlund is directed to a disposable diaper with a particular tape tab fastening means that can suitably be of polyethylene. Sigl describes elasticized garments, not polyethylene from renewable material. The final citation is to the definition of "polyethylenes" in the first paragraph of the Materials Handbook.

The cited references, other than the present specification, either do not refer to environmental solutions or, instead, suggest that biodegradable materials be used. Specifically, the cited references teach away from using 100% polyethene, instead disclosing or suggesting solving the environmental problems with biodegradable materials.

Therefore, Appellants assert that the arguments on page 14, line 6 – page 16, line 5, independently demonstrate the patentability of the claims 1-7 and 34-38. Specifically, that all the claim limitations have not been taught or suggested.

Appellants respectfully request that the rejection of claims 1-7 and 34-38 under 35 U.S.C § 103, as being unpatentable over Appellants' disclosure, Barrocas et al. (US Pat. No. 4,232,179), Toms et al. (US Pat. No. 5,417,679), Cargill (WO 94/07941), Klemp (US Pat. No. 5,176,699), Widlund (US Pat. No. 5,024,672), Sigl (US Pat. No. 4,582,550), and the definition of "polyethylenes," first paragraph, in the Materials Handbook be withdrawn.

Conclusion

For the reasons discussed above, Appellant respectfully submits that the Examiner's decision finally rejecting claims 1-7, 16-22, 29, 30, and 34-38 should be reversed and such action is earnestly solicited.

Respectfully submitted,

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